Amendments to the Specification:

Page 6, line 16

The table 120 preferably includes a lookup table or another mechanism, such as a decision tree, for storing data. Thus, in the context of the present application, a table 120 includes, but is not limited to, lookup tables such as a content addressable memory (CAM) based table and decision trees. The table 120 is used to store actions corresponding to various attributes of the complex system. The entries of the table 120 include one or more actions to be taken in response to attributes of the complex system taking on certain values. The entries of the table 120 are preferably indexed based upon a key. The key might be based upon various information, including the status of the corresponding attribute. The key may be based upon inclusion of an identification of sensors 102 which monitors the status. In addition, the key, as well as the corresponding action, may be based upon multiple attributes from multiple sensors, multiple samples from a single sensor, or some combination thereof. Different values of the key correspond to different entries of the table 120.

Page 9, line 22

The sensors 102' provide their data to the control station 130, preferably through a network. The control station 130 thus receives the statuses of the attributes of the complex system. The control station 130 encapsulates the statuses of the attributes into packets, preferably Ethernet packets. Figure 2 depicts one such Ethernet packet 150 that the control station 130 might build. The Ethernet packet 150 includes the usual header fields 152, 154, 156, 158, 160, 162, and 164. In addition, the Ethernet packet includes an information field 166 and FCS filed 168 after which the Ethernet packet 150 terminates. The information field includes

various subfields: control 170, field1 ID 172, field1 value 174, field2 ID 176, field2 value 178, field3 ID 180, field3 value 182, field4 ID 184, and field4 value 186, which can include the statuses from one or more sensors 102'. The control station 130 forwards these packets to the network processor 110'. In one embodiment, the control station 130 is used primarily in monitoring the statuses of the complex system. In such an embodiment, the apparatus 100' does not control components of the complex system. Instead, the apparatus 100' issues warning, alarms, or other notices. Other component(s) (not shown) would control portions of the complex system. However, in another embodiment, the apparatus 100' could actually control portions of the complex system. In such an embodiment, the control station 130 might also have other functions, such as controlling sampling rate of one or more of the sensors 102'

Page 12, line 7

The network processor 110' receives the statuses for attributes of the complex system from the sensors 102', via step 202. In a preferred embodiment, the network processor 110' receives the statuses via the control station 130 in the form of an Ethernet packet, such as the packet 150. The network processor 110' determines the entry or entries of the table 120' to access based upon the plurality of statuses, via step 204. In a preferred embodiment, step 204 is performed by the network processor 110' building a key and searching the entries of the table 120' for a match to the key. The entry or entries corresponding to the match(es) are accessed, via step 206. Thus, the appropriate action(s) are determined in step 206. Preferably, the corresponding action(s) are taken, via step ~~206~~208. Thus, using the method 200, the complex system can be efficiently monitored and controlled.